

REMARKS

Responding to the second full paragraph on page 2 of the August 25, 2003 Office Action, the Examiner's statement that this application contains claims directed to patentably distinct species of the claimed invention shown in various drawings is respectfully traversed. At least Figures 1-7 and 12-14 illustrate embodiments of a memory module with hierarchal functionality, and the remaining drawings illustrate embodiments showing more details of the embodiments shown in Figures 1-7 and 12-14.

Claims 1-64 are limited to a memory module that are generic to the various drawing Figures. Many of dependent claims 2-64 also recite elements for a hierarchical memory.

Each of claims 65-219 is limited to hierarchical memory structure or method steps involving memory hierarchical functionality. As a result, each of claims 65-219 is generic to each of the drawing figures.

In summary, each of claims 1-219 is generic to the various drawing Figures.

Responding to the December 15, 2003 Office Action, the applicants elect with traverse the species of Fig. 8. Claims 117-133 read on Fig. 8 and the description of the Fig. 8 embodiment on page 38 of the specification.

The Examiner is advised that claims like claims 117-133 have been allowed in Application No. 09/775,476 pending in Group Art Unit 2818 before Examiner Trong Q. Phan. As a result, claims 117-133 have been canceled and replaced with new claims

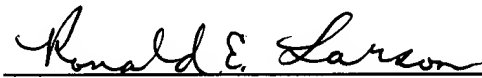
220-223, which read on Fig. 8 and the description of the Fig. 8 embodiment on pages 37-38 of the specification.

In view of the restriction requirement and the election of species, claims 1-219 have been cancelled without prejudice to the applicants' right to file divisional applications covering the subject matter of such claims.

In summary, each of claims 220-223 is allowable, and such action is respectfully requested.

Date: January 15, 2004

Respectfully submitted,

A handwritten signature in cursive script that reads "Ronald E. Larson". The signature is written in dark ink and is positioned above a horizontal line.

Ronald E. Larson
Reg. No. 24,478
Attorney for Applicants

McAndrews, Held & Malloy, Ltd.
500 W. Madison, 34th Floor
Chicago, IL 60661
312 775-8000